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R.G.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/178,249	10/23/98	JIN	C TI-26111

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EXAMINER

LEE, G

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 04/13/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Applicant(s)

09/178,249

Applicant(s)

JIN ET AL.

Examiner

G.Lee

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 17) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other:

DETAILED ACTION

Response to Applicant's Arguments

1. The applicant's arguments filed 3/20/00 have been fully considered but they are not persuasive. The following references cited read on the applicant's claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Terms such as *periphery* of said chamber, *radial* over and to a *central axis* should be simplified to communicate intent of invention and claim elements.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2825

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US. Pat. 5,955,140) , and further in view of Radhakrishnan (US. Pat. 5,650,361).

Smith et al. discloses using gel materials for semiconductor thin dielectric films (Col. 3 lines 23-27) with an ammonia based catalyst or precursor (Col. 12 lines 10-23). Smith et al. does not teach or state explicitly that ammonia can be introduced into a controlled environment.

Radhakrishnan teaches that making a dielectric thin film (Abstr.) using ammonia as a precursor (Col. 3 lines 16-20) and a bubbler (Col. 4 lines 18-25) with mixtures of water and ammonia hydroxide (Col. 4 lines 39-46) maintained at constant proposition and temperature (Col. 4 lines 40-47) where the substrate is dipped at various times (Col. 4 lines 45-60), can take place in a controlled atmospheric chamber (Col. 4 lines 7-35). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to adapt Smith et al. with Radhakrishnan with the expectation of achieving better quality substrates, since processes that are less thermal in nature causes less damage to substrates.

Final Action

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL.

See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications for the examiner should be directed to Granvill Lee whose telephone number is (703) 306-5865. The examiner can be normally reached on Monday thru Thursday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are not successful, the examiner's supervisor, Matthew Smith can be reached on (703) 308-1323. The fax phone number for this group is (703) 308-7722.

Application/Control Number: 09/178,249

Art Unit: 2825

Page 5

Any inquiry of a general nature relating to status or otherwise should be directed to the receptionist whose telephone number is 703-308-1782.

GI

4/4/00



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